

## WHAT IS CLAIMED IS:

1. A biologically active composition-of matter comprising ceruloplasmin and a serum-derived composition (SDF) having a low molecular weight, being electrically charged at acidic pH and having absorption at 280 nm.
2. The biologically active composition-of matter of claim 1, wherein a concentration of said serum-derived composition is selected capable of inducing terminal cell differentiation of leukemic cells.
3. The biologically active composition-of matter of claim 1, wherein a concentration of said serum-derived composition is selected capable of inducing loss of proliferation and self cell renewal in leukemic cells.
4. The biologically active composition-of matter of claim 1, wherein a concentration of said serum-derived composition is selected capable of stimulating the proliferation of early, normal progenitor cells.
5. The biologically active composition-of matter of claim 1, wherein a concentration of said serum-derived composition is selected capable of inhibiting enhanced angiogenesis.
6. A pharmaceutical composition comprising, as active ingredients, ceruloplasmin and a serum-derived composition (SDF) having a low molecular weight, being electrically charged at acidic pH and having absorption at 280 nm, and a pharmaceutically acceptable additive.
7. The pharmaceutical composition of claim 6, wherein a concentration of said serum-derived composition is selected capable of inhibiting enhanced angiogenesis.

8. The pharmaceutical composition of claim 6, wherein a concentration of said serum-derived composition is selected capable of inducing remission in tumor tissue.

9. The pharmaceutical composition of claim 6, wherein a concentration of said serum-derived composition is selected capable of expanding hematopoietic normal stem and progenitor bone marrow transplants.

10. A method of inducing terminal cell differentiation of leukemic cells in a patient in need thereof, the method comprising administering to the patient a therapeutically effective amount of a pharmaceutical composition including as active ingredients, ceruloplasmin and a serum-derived composition (SDF) having a low molecular weight, being electrically charged at acidic pH and having absorption at 280 nm, wherein said therapeutically effective amount is selected so as to induce terminal cell differentiation of leukemic cells in the patient.

11. A method of inducing leukemic cells to lose their ability to proliferate and their ability for self cell renewal in a patient in need thereof, the method comprising administering to the patient a therapeutically effective amount of a pharmaceutical composition including as active ingredients, ceruloplasmin and a serum-derived composition (SDF) having a low molecular weight, being electrically charged at acidic pH and having absorption at 280 nm, wherein said therapeutically effective amount is selected so as to induce leukemic cells to lose their ability to proliferate and their ability for self cell renewal in the patient.

12. A method of stimulating the proliferation of early normal progenitor cells in a patient in need thereof, the method comprising administering to the patient a therapeutically effective amount of a pharmaceutical composition including as

active ingredients, ceruloplasmin and a serum-derived composition (SDF) having a low molecular weight, being electrically charged at acidic pH and having absorption at 280 nm, wherein said therapeutically effective amount is selected so as to stimulate the proliferation of early normal progenitor cells in the patient.

13. A method of inhibiting enhanced angiogenesis in a patient in need thereof, the method comprising administering to the patient a therapeutically effective amount of a pharmaceutical composition including as active ingredients, ceruloplasmin and a serum-derived composition (SDF) having a low molecular weight, being electrically charged at acidic pH and having absorption at 280 nm, wherein said therapeutically effective amount is selected so as to inhibit enhanced angiogenesis in the patient.

14. A method of inducing remission of tumors in a patient in need thereof, the method comprising administering to the patient a therapeutically effective amount of a pharmaceutical composition including as active ingredients, ceruloplasmin and a serum-derived composition (SDF) having a low molecular weight, being electrically charged at acidic pH and having absorption at 280 nm, wherein said therapeutically effective amount is selected so as to induce remission of tumors in a patient.

15. A method of maintaining a tumor remission state in a patient in need thereof, the method comprising administering to the patient a therapeutically effective amount of a pharmaceutical composition including as active ingredients, ceruloplasmin and a serum-derived composition (SDF) having a low molecular weight, being electrically charged at acidic pH and having absorption at 280 nm, wherein said therapeutically effective amount is selected so as to maintain a tumor remission state in the patient.

16. A method of expanding hematopoietic normal stem and progenitor bone marrow transplants, the method comprising subjecting the hematopoietic normal stem and the progenitor bone marrow transplants to a composition-of-matter including ceruloplasmin and a serum-derived composition (SDF) having a low molecular weight, being electrically charged at acidic pH and having absorption at 280 nm for a time period sufficient to expand said hematopoietic normal stem and said progenitor bone marrow transplants.

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